

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR			
10/645,193	08/20/2003	TRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
		Yevgeniy S. Nimon	PLUSP023D1	7079	
22434 75	09/24/2004				
BEYER WEAVER & THOMAS LLP			EXAMINER		
P.O. BOX 778			WEINER, LAURA S		
BERKELEY, C	CA 94704-0778		ABTINE		
,			ART UNIT	PAPER NUMBER	
			1745		
			DATE MAILED: 09/24/2004		

Please find below and/or attached an Office communication concerning this application or proceeding.

					\
		Application N	lo.	Applicant(s)	
	10/645,193		NIMON ET AL.		
Office Action	on Summary	Examiner		Art Unit	
		Laura S Weine		1745	
The MAILING DA	NTE of this communication ap	pears on the co	ver sheet with the c	orrespondence addr	ess
A SHORTENED STATE THE MAILING DATE C  - Extensions of time may be averafter SIX (6) MONTHS from the  - If the period for reply specified  - If NO period for reply is specified  - Failure to reply within the set of	UTORY PERIOD FOR REPL F THIS COMMUNICATION. illable under the provisions of 37 CFR 1.1 e mailing date of this communication. above is less than thirty (30) days, a repled above, the maximum statutory period or extended period for reply will, by statute the later than three months after the mailing the second of the s	136(a). In no event, h ly within the statutory will apply and will exp e, cause the applicatio	owever, may a reply be tin minimum of thirty (30) day ire SIX (6) MONTHS from in to become ABANDONE	nely filed s will be considered timely. the mailing date of this comi D (35 U.S.C. § 133).	munication.
Status					
1) Responsive to co	mmunication(s) filed on <u>20 A</u>	lugust 2003.			
2a) This action is FIN	I <b>AL</b> . 2b)⊠ This	s action is non-f	inal.		
	ition is in condition for allowa ance with the practice under <i>l</i>				nerits is
Disposition of Claims					
4a) Of the above 5) ☐ Claim(s) is 6) ☑ Claim(s) <u>19-21 au</u> 7) ☑ Claim(s) <u>22 and 2</u>		wn from conside			
Application Papers					
10) The drawing(s) file  Applicant may not a  Replacement draw	s objected to by the Examine ed on is/are: a) according a decident and any objection to the organization is objected to by the Examine.	cepted or b)  c drawing(s) be he tion is required if	eld in abeyance. See the drawing(s) is ob	e 37 CFR 1.85(a). jected to. See 37 CFR	` ′
Priority under 35 U.S.C. §	119				
12) Acknowledgment a) All b) Some 1. Certified co 2. Certified co 3. Copies of t application	is made of a claim for foreign	ts have been re ts have been re ority documents u (PCT Rule 17	ceived. ceived in Applicati have been receive .2(a)).	on No ed in this National St	age
Attachment(s)	/PTO 802)	۸. ۲	The terminant of the second	(DTO 442)	
1) 🔀 Notice of References Cited 2) 🔲 Notice of Draftsperson's Pa		4) <u>L</u>	Interview Summary Paper No(s)/Mail Da		
	ement(s) (PTO-1449 or PTO/SB/08)	5) [ 6) [	Notice of Informal P	atent Application (PTO-1	52)

Art Unit: 1745

#### **DETAILED ACTION**

### Election/Restrictions

- Restriction to one of the following inventions is required under 35 U.S.C.
  - Claims 19-24, drawn to a lithium negative electrode having a film coating, classified in class 429, subclass 231.95.
  - II. Claims 38-42, drawn to a method of making a battery comprising forming a negative electrode with a protective film, classified in class 429, subclass 215.
  - III. Claims 43-47, drawn to a method of making a battery comprising combining the negative and positive electrodes together and then forming a protective film on the negative electrode, classified in class 429, subclass 307.
- 2. The inventions are distinct, each from the other because of the following reasons:
- 3. Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP 806.04, MPEP 808.01). In the instant case the different inventions, are not disclosed as capable of use together and have different effects such that Invention II treats the lithium anode to form a protective film and then combines with a cathode and a separator to form a battery

Art Unit: 1745

versus Invention III utilizes an electrolyte containing an oxidizing agent additive to form a protective film on the negative electrode after the battery is formed.

- 4. Inventions I and II, III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP 806.05(h)). In the instant case, the product as claimed can be used in a materially different process of using that product such that Invention II treats the lithium anode to form a protective film and then combines with a cathode and a separator to form a battery versus Invention III utilizes an electrolyte containing an oxidizing agent additive to form a protective film on the negative electrode after the battery is formed.
- 5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
- 6. During a telephone conversation with Mr. James Austin on September 20, 2004, a provisional election was made with traverse to prosecute the invention of Group I, claims 19-24. Affirmation of this election must be made by applicant in replying to this Office action. Claims 38-47 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Page 4

Art Unit: 1745

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

## Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 8. Claims 19-21, 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Koksbang (5,487,959).

Koksbang teaches a layer for stabilization of lithium anode. Koksbang teaches in column 5, lines 55-60, that an I2/PVP protective coating or layer is formed on the anode. Koksbang teaches in column 6, lines 13-19, 45-50, that the coating protects the anode from reaction with the lithium because I2 reacts with lithium to form LiI.

9. Claims 19 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Momyer (4,001,043) or De Jonghe et al. (4,917,974).

Momyer teaches in column 2, lines 26-46, that a hydrous oxide film on the reactive anode when hydrogen peroxide is used.

Art Unit: 1745

De Jonghe et al. teaches a lithium anode where a barrier layer is formed on the surface of the lithium anode.

# Information Disclosure Statement

10. The information disclosure statement filed 8-20-03 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

#### Allowable Subject Matter

11. Claims 22-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura S Weiner whose telephone number is 571-272-1294. The examiner can normally be reached on M-F (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Application/Control Number: 10/645,193

Art Unit: 1745

Page 6

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Laura S Weiner Primary Examiner Art Unit 1745

September 22, 2004